

Medical Briefing

10/5/2018

Lead In Paint

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Lead Based Paint

Lead based paints have been used extensively in the past due to its superior durability and flexibility against harsh environments. BNSF no longer uses lead-based paints although lead based paints can still be found on bridges, building paint, and rolling stock. Paint chip samples of various equipment and structures indicate that bridges are the most significant sources of lead within BNSF operations.



How am I exposed to lead based paints?

Paints containing lead become hazardous when subjected to processes that produce dusts, fumes or other fine particulates. Examples include torch cutting or paint burning, sanding, grinding, welding and rivet busting. Lead particles are dangerous only when inhaled or ingested.

What are the short term health effects of lead?

Typically lead has very little immediate effect until blood lead levels become extremely high. Most activities involving repair of bridges and equipment are still not high enough to cause short term effects.

What are the long term health effects of lead?

Lead has a tendency to build up in the body, thus repeated exposures can have a cumulative effect on certain organs such as the:

- Central and peripheral nervous system
- Kidneys
- Blood forming system
- Reproductive system

How to protect yourself from lead

The best method of protection from lead and other fume is the use of a local fume extraction system. Vacuum shrouded tools are also available to be used when welding, sanding and grinding. High Efficiency Particulate Air (HEPA) vacuums can also be used to clean personnel and work areas.

Other means of protection include:

- Not eating, drinking or smoking in lead contaminated areas.
- Washing your hands and face frequently and shower as soon as possible after finishing lead work.
- Participate in the BNSF medical monitoring program for lead.
- Wear personal protective equipment when necessary. This includes respirators equipped with HEPA filters, disposable or reusable coveralls, hoods and gloves. You must be medically cleared, fit tested, trained, and in compliance with BNSF's facial hair policy to wear the respirator.
- Participate in lead protection training. This program describes hazards, work practices, engineering controls and PPE in greater detail.

WE ARE BNSF. PROTECTING HEALTH AND SAFETY.

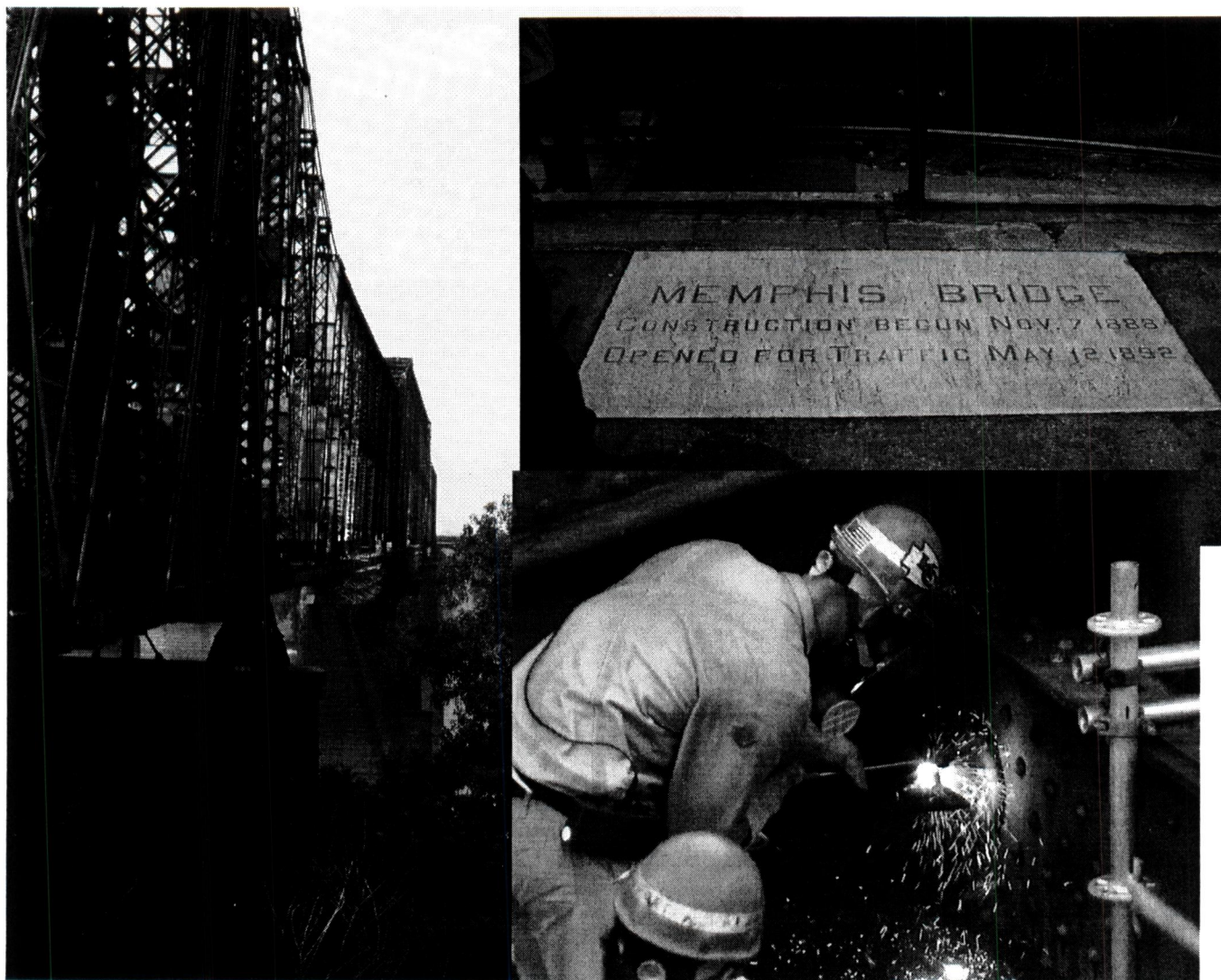
Contact your regional Manager Industrial Hygiene for additional information on this topic by following the below path or clicking the link:

Path: Employee Portal/Safety/Medical and Environmental Health (More Info)/MEH Department Directory

Link: <https://employee.bnsf.com/departments/hr-medical/Pages/Find-My-Medical-Environmental-Health-Contact.aspx>

Summary

Lead based paints are still found on bridges, rolling stock and some work equipment. Hot work and abrasive work on these surfaces can produce lead dusts and fumes. Lead can have serious long-term effects on the nervous system, kidneys and reproductive system. The key to your protection is to keep lead out of your body by using appropriate engineering controls, work practices, PPE and good personal hygiene.

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Additional resources on this topic may be found on the BNSF intranet pages.

BNSF Medical Briefing: *Welding Fume*

BNSF Industrial Hygiene Playbook